

APR 24 2007

Serial No. 10/039,010
Amendment and Response to
Office Action Mailed January 12, 2007**THE CLAIMS**

The following is a complete listing of the claims, which replaces all previous versions and listings of the claims.

1. (currently amended) A method for transacting between an initiator device and a plurality of target devices, the method comprising:

associating each of the plurality of target devices with a single base address,
wherein the same single base address is associated with each of the plurality of target devices;
sending a multicast transaction from the initiator device to the plurality of target devices, wherein sending the multicast transaction comprises sending a multicast transaction to the single base address associated with each of the plurality of target devices; and
executing the transaction when the transaction is received by the plurality of target devices according to the configuration of the target ~~device~~ devices.

2. (previously presented) The method of claim 1, wherein the associating each of the plurality of target devices comprises:

assigning a base memory address to be shared by the plurality of target devices;
and
assigning a first portion of memory to a first target device of the plurality of target devices.

Serial No. 10/039,010
Amendment and Response to
Office Action Mailed January 12, 2007

3. (previously presented) The method of claim 2, wherein the transaction is a read request for a block of stored data from memory, comprising:

recognizing the base memory address from the read request;

initiating a read operation by the plurality of target devices assigned to the base memory address;

fetching stored data from a portion of memory associated with each of the target devices, the data being concurrently fetched by each associated target device; and

sending the fetched data to the initiator device.

4. (previously presented) The method of claim 2, wherein the transaction is a write request for data to be stored in memory, comprising:

recognizing the base memory address from the write request;

initiating a write operation by the plurality of target devices assigned to the base memory address; and

writing data of the write request to a portion of memory associated with each target device, the data being concurrently written by each associated target device.

5. (original) The method of claim 1, wherein the target devices comprise input/output controllers.

6. (original) The method of claim 1, wherein the target devices comprise disk array controllers.

7. (cancelled)

Serial No. 10/039,010
Amendment and Response to
Office Action Mailed January 12, 2007

8. (previously presented) The method of claim 1, comprising a plurality of target groups.

9. (previously presented) A method for transacting data stored in memory between an initiator device and multiple target devices, the method comprising:

detecting a multicast transaction request;

accessing a first portion of memory by a first target device in response to the multicast transaction request; and

accessing a second portion of memory by a second target device concurrently with the access to the first portion of memory in response to the multicast transaction request, wherein the first and second portions of memory are accessed with a single base address associated with both the first target device and the second target device.

10. (original) The method of claim 9, wherein the target devices comprise input/output controllers.

11. (original) The method of claim 9, wherein the target devices comprise disk array controllers.

12. (cancelled)

13. (previously presented) The method of claim 9, comprising accessing a plurality of target devices, wherein the plurality of target devices are divided into a plurality of

Serial No. 10/039,010
Amendment and Response to
Office Action Mailed January 12, 2007

groups, wherein each of the plurality of groups is associated with a single base memory address configured to address the target devices within that group.

14-15. (cancelled)

16. (currently amended) A computer system comprising:

a bus;

an initiator device coupled to the bus, the initiator device configured to initiate a transaction request; and

a plurality of target devices coupled to the bus, wherein each of the plurality of target devices concurrently executes a portion of the transaction request, wherein the initiator device is configured to multicast the the ^{[[a]]} transaction request to the plurality of target devices using a single base address associated with the plurality of target devices, wherein the same single base address is associated with each of the plurality of target devices.

17. (previously presented) The computer system of claim 16, wherein the plurality of target devices comprise input/output controllers.

18. (previously presented) The computer system of claim 16, wherein the plurality of target devices comprise disk array controllers.

19. (cancelled)

Serial No. 10/039,010
Amendment and Response to
Office Action Mailed January 12, 2007

20. (original) The computer system of claim 16, wherein the plurality of target devices comprise a target group.

21. (previously presented) The computer system of claim 20, comprising a plurality of target groups.

22. (original) The method of claim 16, wherein the transaction is a multicast read request.

23. (original) The method of claim 16, wherein the transaction is a multicast write request.

24. (previously presented) The computer system of claim 16, wherein the bus comprises a Peripheral Component Interconnect (PCI) bus.

25. (previously presented) A computer system comprising:

a processor;

a bus coupled to the processor;

an initiator device coupled to the bus, the initiator device configured to issue a multicast transaction; and

a plurality of target devices coupled to the bus, the plurality of target devices configured to execute the multicast transaction with concurrent data responses from a plurality of interleaved memory regions, wherein the initiator device is configured to multicast the transaction request to the

Serial No. 10/039,010
Amendment and Response to
Office Action Mailed January 12, 2007

plurality of target devices using a single base address associated with the
plurality of target devices, wherein the same single base address is
associated with each of the plurality of target devices.

26. (original) The computer system of claim 25, wherein the target devices
comprise input/output controllers.

27. (original) The computer system of claim 25, wherein the target devices
comprise disk array controllers.

28. (cancelled)

29. (previously presented) The computer system of claim 25, wherein the plurality
of target devices are divided into a plurality of target groups, wherein each of the target
groups is associated with its own base address.

30-31. (cancelled)

32. (previously presented) A computer comprising:
a memory;
a controller configured to logically divide the memory into a plurality of
interleaved memory regions; and
a plurality of devices, wherein each of the plurality of devices is associated with
one of the interleaved memory regions and wherein each of the devices

Serial No. 10/039,010
Amendment and Response to
Office Action Mailed January 12, 2007

simultaneously accesses its associated interleaved memory region in
response to a single transaction request.

33. (previously presented) A method comprising:
dividing a section of memory into a plurality of interleaved memory regions;
associating the plurality of interleaved memory regions with a plurality of target
devices;
associating the plurality of target devices with a single base memory address,
wherein the same single base memory address is associated with each of the
plurality of target devices; and
executing a memory access using the single base memory address.

34. (previously presented) The method of claim 33, wherein executing the memory
access comprises executing a read operation.

35. (previously presented) The method of claim 33, wherein executing the memory
access comprises executing a write operation.

36. (previously presented) A tangible machine readable medium comprising:
code to initialize a plurality of devices;
code to configure the plurality of devices to associate a single base address with the
plurality of devices; and

Serial No. 10/039,010
Amendment and Response to
Office Action Mailed January 12, 2007

code to associate the single base address with a plurality of interleaved memory regions, wherein the same single base address is associated with each of the plurality of interleaved memory regions.

37. (previously presented) The tangible medium of claim 36, comprising:
code to issue a single read command comprising the single base address;
code to recognize the single base address as associated with the plurality of devices;
code to simultaneously execute a plurality of memory requests involving the plurality of devices;
code to receive data from the plurality of devices; and
code to write the received data to a bus.

38. (previously presented) The tangible medium of claim 36, comprising:
code to issue a write command comprising the single base address;
code to recognize the base address as associated with the plurality of devices; and
code to simultaneously write to the plurality of devices.

39. (previously presented) The method of claim 1, wherein sending the multicast transaction comprises sending the multicast transaction from a disk drive controller to a plurality of disk drives.

Serial No. 10/039,010
Amendment and Response to
Office Action Mailed January 12, 2007

40. (previously presented) The method of claim 1, wherein sending the multicast transaction comprises sending the multicast transaction from a SCSI controller to a plurality of SCSI devices.

41. (previously presented) The computer system of claim 16, wherein the initiator device comprises a SCSI controller.

42. (previously presented) The computer system of claim 16, wherein the plurality of target devices comprises a plurality of disk drives.

43. (previously presented) The computer system of claim 25, wherein the initiator device comprises a SCSI controller.

44. (previously presented) The computer system of claim 25, wherein the plurality of target devices comprises a plurality of SCSI hard drives.

45. (previously presented) The computer of claim 32, wherein the controller comprises a SCSI controller.

46. (previously presented) The computer of claim 32, wherein the plurality of devices comprises a plurality of SCSI hard drives.